

ACG 9/26/06

perceptually coherent with the original object. In addition, the ARG representation of the P3DS descriptor can be utilized to search a 3D model database and provide searched results that coincide with the human visual perception mechanism.

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Please replace the paragraph beginning on page 13, line 18, with the following amended paragraph:

A method of searching a P3DS model database according to the present invention disclosure will now be described. In order to evaluate the database search performance of the P3DS descriptor, a database search test was conducted using a database that is currently used by MPEG-7. The database used included 3,903 3D graphics models categorized in a 4-hierarchical structure that includes 8 top categories and 102 leaf categories. Bull's eye performance (BEP) and average normalized marching retrieval rate (ANMRR) used by MPEG-7 were applied as performance evaluation measures. A leaf category which a query model belongs to was used as a true value. A higher BEP score and a lower ANMPP score mean a more effective performance.

Please replace the paragraph beginning on page 14, line 5, with the following amended paragraph:

FIG. 16 comparatively shows the search performance between the P3DS descriptor according to the present invention disclosure and a conventional Shape3D descriptor for a set of 366 query models. The query models used belong to 10 selected leaf categories. As is apparent from FIG. 16, the performance of the P3DS descriptor according to the present invention disclosure as measured by BEP and ANMRR are excellent absolutely and over the conventional Shape3D descriptor.